

- 28 -

AN AIRCRAFT CABIN

CLAIMS:

- 5 1. An aircraft cabin that comprises a plurality of
"private" passenger compartments for passengers during an
aircraft flight, with each compartment comprising walls
that define a compartment space and being accessible via a
10 doorway in one of the walls, and with each compartment at
least comprising a chair for a passenger.
2. The cabin defined in claim 1 wherein the
compartment walls are at least 1.5 m high.
- 15 3. The cabin defined in claim 2 wherein the
compartment walls are at least 1.6 m high.
4. The cabin defined in any one of the preceding
claims comprises at least 3 rows of the compartments
20 extending in a length-wise extending direction of the
aircraft, with adjacent rows being separated by length-
wise extending aisles, and with: (a) two outer rows being
positioned along opposite sides of the aircraft with the
aircraft side walls forming compartment walls, and (b) at
25 least one internal row being positioned between the outer
rows and separated from at least one outer row by a said
length-wise extending aisle.
5. The cabin defined in claim 4 wherein the doorway
30 walls define the aisles and the compartments are
accessible from the aisles via the doorways.
6. The cabin defined in claim 4 or claim 5 wherein
the doorways divide the doorway walls into two sections,
35 with one section on each side of each doorway.
7. The cabin defined in claim 6 wherein the doorways

- 29 -

are positioned centrally in the doorway walls.

8. The cabin defined in any one of claims 4 to 7 wherein the aisles are curved along the length thereof.

5

9. The cabin defined in claim 8 wherein the curved aisles are formed by forming the doorway walls as curved walls and by positioning the compartments so that the doorways of the compartments on opposite sides of the

10 aisles are not aligned.

10. The cabin defined in claim 9 wherein the compartments are positioned so that the doorways of the compartments on one side of the aisles face the doorway

15 walls on the other side of the aisles, and vice versa.

11. The cabin defined in any one of claims 4 to 10 wherein the walls that form the two outer rows of the compartments comprise (a) the aircraft side walls, (b)

20 walls that extend inwardly from the aircraft side walls, and (c) the doorway walls.

12. The cabin defined in any one of claims 4 to 11 wherein the or each interior row of the compartments

25 comprises a plurality of pairs of length-wise extending compartments, with the doorways of the compartments of each pair providing access to the compartments from aisles on opposite sides of the interior row.

13. The cabin defined in claim 12 wherein the compartments of at least one pair of compartments is separated by a length-wise extending wall that is a removable wall, whereby the pair of compartments may be converted into a double compartment by removing the

30 35 removable wall.

14. The cabin defined in claim 13 wherein each

- 30 -

compartment of the at least one of the pair of compartments comprises single beds that can be moved from storage positions to sleep positions that are in side-by-side relationship when the compartment is converted into the double compartment so as to form a double bed.

15. The cabin defined in any one of claims to 4 to 14 comprises a plurality of wardrobes in walls of the compartments that separate adjacent compartments in the rows of compartments.

16. The cabin defined in claim 15 wherein the wardrobes include wardrobes that are mounted for sliding movement between storage positions in the walls and operative positions in which the wardrobes extend into the aisles and are accessible from the aisles.

17. The cabin defined in any one of the preceding claims wherein each compartment includes doors for the doorways so that the compartments can be completely enclosed spaced when the doors are closed.

18. A private passenger compartment for a passenger during an aircraft flight that comprises walls that define a compartment space, a doorway in one of the walls that enables access to the compartment from an aisle, and a chair and other basic furniture located in the compartment space in an interactive way so that the furniture can be selectively arranged in a number of different configurations.

19. The compartment defined in claim 18 wherein the compartment walls are at least 1.5 m high.

20. The compartment defined in claim 19 wherein the compartment walls are at least 1.6 m high.

- 31 -

21. The compartment defined in any one of claims 18 to 20 wherein the doorway divides the doorway wall into two sections, with one section on each side of the doorway.

5

22. The compartment defined in claim 21 wherein the doorway is positioned centrally in the doorway wall.

23. The compartment defined in claim 21 or claim 22
10 wherein the sections of the doorway wall are curved, for example by being convex as viewed from the aisle, so that the compartment is wider in these sections of the compartment than in the region of the doorway.

15 24. The compartment defined in claim 23 wherein the doorway wall includes at least one window.

25. The compartment defined in claim 24 wherein the doorway wall includes at least two windows, with at least
20 one window in each section of the doorway wall.

26. The compartment defined in claim 25 wherein the windows include retractable blinds that can be closed.

25 27. The compartment defined in any one of claims 18 to 26 includes a door assembly for closing the doorway.

28. The compartment defined in claim 27 wherein the door assembly comprises a door mounted for sliding
30 movement from a retracted position within the doorway wall to a closed position in which the door extends across the doorway and closes the compartment.

29. The compartment defined in claim 28 wherein the
35 door assembly comprises a pair of doors mounted for sliding movement inwardly towards each other from retracted positions within the sections of the doorway

- 32 -

walls that are on opposite sides of the doorway.

30. The compartment defined in any one of claim 29 wherein the doors include transparent windows that are positioned so that the view through the windows in the doorway walls is not obscured by the doors when the doors are in the retracted positions.

31. The compartment defined in claim 30 wherein the doors include retractable blinds that can be closed when the doors are in the closed positions.

32. The compartment defined in claim 27 wherein the door assembly comprises an upper rail and a curtain supported by the rail.

33. The compartment defined in claim 32 wherein the rail is mounted for sliding movement between a retracted position within the doorway wall and an operative, ie closed, position in which the rail extends across the doorway.

34. The compartment defined in claim 33 wherein the curtain is adapted to fold in a concertina fashion so that (a) the curtain folds against the doorway wall when the rail is slid into the retracted position and (b) the curtain expands and closes the doorway when the rail is in the operative position.

35. The compartment defined in any one of claims 18 to 34 wherein the configurations of the compartment comprise relaxation, work, and sleep configurations.

36. The compartment defined in any one of claims 18 to 35 wherein, in addition to the chair, the other basic furniture of the compartment comprises any one or more of a table assembly, a cadenza that houses the table assembly

- 33 -

when the table assembly is in a folded position, a seat, and a bed.

37. The compartment defined in claim 36 wherein the
5 bed is foldable from a storage position in one of the compartment walls to a sleep position within the compartment.

38. The compartment defined in claim 37 wherein the
10 chair is foldable from an operative position in which a person can sit upright in the chair to an inoperative position in which the folded chair defines a support for the bed when the bed is in the sleep position.

39. The compartment defined in claim 38 wherein the
15 chair defines a bedside table when the chair is in the inoperative position.

40. The compartment defined in any one of claims 37
20 to 39 wherein the seat is adapted to define a support for the bed when the bed is in the sleep position.

41. The compartment defined in any one of claims 37
25 to 40 wherein the cadenza is adapted to define a support for the bed when the bed is in the sleep position.

42. The compartment defined in claim 41 wherein the
cadenza is movable from a raised operative position in which the cadenza can be accessed conveniently by a
30 passenger seated in the chair to a lowered bed support position.

43. The compartment defined in any one of claims 36
35 to 42 wherein the table assembly is housed in the cadenza so that it can be moved, for example by being swivelled, from a stored position within the cadenza to an operative position with a table of the table assembly extending

- 34 -

horizontally into the compartment proximate the chair.

44. The compartment defined in any one of claims 36 to 42 wherein an interactive combination of the furniture in the compartment space comprises: (a) the chair to one side of the doorway, (b) the seat to the other side of the doorway, (c) the cadenza against the wall opposite the doorway, and (d) the table assembly housed in the cadenza and movable between a stored position within the cadenza and an operative position with a table of the table assembly extending horizontally into a space between the chair and the seat.

45. The compartment defined in any one of claims 18 to 35 wherein, in addition to the chair, the other basic furniture of the compartment comprises any one or more of a work desk, a table assembly, a seat, a bed and a visual display system of an entertainment system.

46. The compartment defined in claim 45 wherein an interactive combination of the basic furniture in the compartment space comprises: (a) the chair in one corner of the compartment space, (b) the work desk along at least a part of one wall of the compartment and proximate the chair, (c) the table assembly movable between a stored position adjacent one wall of the compartment and an operative position with a table of the table assembly extending horizontally proximate the chair.

47. The compartment defined in claim 46 comprises the bed movable between a raised storage position and a lowered sleep position on the work desk.

48. The compartment defined in claim 46 or 47 comprises the seat adjacent at least a part of one wall of the compartment.

- 35 -

49. The compartment defined in any one of claims 46 to 48 wherein the work desk and the seat are positioned adjacent different walls of the compartment.

5 50. The compartment defined in claim 45 wherein an interactive combination of the basic furniture in the compartment space comprises: (a) the chair in one corner of the compartment space, (b) the seat adjacent one wall of the compartment, (c) the table assembly movable between
10 a stored position adjacent one wall of the compartment and an operative position with a table of the table assembly extending horizontally proximate the chair.

15 51. The compartment defined in claim 45 wherein an interactive combination of the basic furniture in the compartment space comprises: (a) the chair in one corner of the compartment space, (b) the bed movable between a raised storage position and a lowered sleep position, (c) the table assembly movable between a stored position
20 adjacent one wall of the compartment and an operative position with a table of the table assembly extending horizontally proximate the chair.

25 52. The compartment defined in claim 45 wherein an interactive combination of the basic furniture in the compartment space comprises: (a) the chair in one corner of the compartment space, (b) the seat adjacent a an wall opposite the chair when the chair is in a take-off position, (c) the work desk adjacent a wall that is in a
30 lengthwise-extending direction of the aircraft, (d) the table assembly movable between a stored position adjacent the same wall as the work desk and an operative position with a table of the table assembly extending horizontally in a space between the chair and the seat, and (e) the bed
35 movable between a raised storage position and a lowered sleep position on the work desk.

- 36 -

53. The compartment defined in claim 52 wherein the work desk and the table assembly are located adjacent the wall that is opposite the wall that defines the doorway.

5 54. The compartment defined in claim 53 wherein the work desk defines a support platform for the bed and supports the bed when the bed is in the sleep position.

10 55. The compartment defined in claims 54 wherein the bed is stored in the raised position in the compartment space and is moveable down to the lowered sleep position on the platform and is supported by the platform in the lowered position.

15 56. The compartment defined in any one of claims 52 to 55 wherein the work desk and the table assembly are positioned in relation to the chair when the table assembly is in the operative position so that the chair can be swiveled between positions facing the work desk and
20 the table assembly.

57. The compartment defined in any one of claims 52 to 56 wherein a work platform of the work desk is vertically adjustable to accommodate different
25 requirements of different passengers.

58. The compartment defined in claim 57 wherein the stored position of the table assembly is adjacent the work desk.

30

59. The compartment defined in claim 57 wherein the stored position of the table assembly is within the space occupied by the work desk.

35 60. The compartment defined in any one of claims 52 to 59 wherein the table assembly comprises: (a) a base member that can slide between the stored position adjacent

- 37 -

the side wall and the operative position between the chair and the seat, (b) a support arm pivotally mounted to the base member and foldable between the storage position and the operative position, and (c) a table pivotally mounted to the support arm.

61. The compartment defined in claim 60 wherein the table assembly can be moved from the stored position to the operative position by sliding or otherwise moving the base member outwardly from the stored position, lifting the table upwardly and inwardly into the compartment space and thereby pivoting the support arm upwardly and inwardly into the compartment space until the table is in the horizontal operative position.

62. The compartment defined in claim 61 wherein the support arm comprises a table support element that is positioned to support an underside of the table when the table assembly is the operative position with the table in the horizontal position.

63. The compartment defined in claim 62 wherein the table comprises side wings that can be folded between an inward storage position and an outward operative position.

64. The compartment defined in claim 63 wherein the base member defines a storage compartment.